

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS:

1. (Currently Amended) A device, comprising:

a waveguide core having a bottom surface and a top surface that defines a beveled mirror, the beveled mirror confining, within the waveguide core, reflections of a mode transmitted along the waveguide core;

a cladding layer adjacent to the bottom surface, the cladding layer having a thickness equal to or greater than an evanescent tail of the mode;

a detector layer; and

an attenuating layer coupled to the bottom surface of the waveguide core and positioned on top of the detector layer;

wherein the beveled mirror directs the mode [[is]] from within the waveguide core to the attenuating layer, the mode traveling through the attenuating layer and into the detector layer.

2. (Previously Presented) The device of claim 1, wherein the beveled mirror is at an angle relative to the waveguide core that is at least equal to an angle of total internal reflection of the waveguide core.

3. (Canceled)

4. (Previously Presented) The device of claim 1, wherein the detector layer comprises a base of a phototransistor.

5. (Canceled)

6. (Previously Presented) The device of claim 1, wherein the waveguide core is disposed over a substrate and the beveled mirror directs the mode, propagated through the waveguide core, through the detector layer into the substrate.

7. (Previously Presented) The device of claim 1, wherein the detector layer comprises an intrinsic layer region of a photodiode having an n-type region and a p-type region.

8. (Cancelled)

9. (Previously Presented) The device of claim 7, wherein the waveguide core is disposed over a substrate and the beveled mirror directs the mode, propagated through the waveguide core, through the detector layer into the substrate.

10 to 30. (Canceled)

31. (Previously Presented) A device, comprising:

a waveguide core having a bottom surface;

a cladding layer adjacent to the bottom surface, the cladding layer having a thickness equal to or greater than an evanescent tail of a mode transmitted along the waveguide core;

a detector layer;

an attenuating layer coupled to the bottom surface of the waveguide core and positioned on top of the detector layer; and

a beveled mirror disposed on the waveguide core, the beveled mirror confining reflections of the mode within the waveguide core, the beveled mirror directing the mode from within the waveguide core to the attenuating layer.

32. (Previously Presented) The device of claim 31, wherein the waveguide core has a top surface that defines an angle, the angle being at least equal to an angle of total internal reflection of the waveguide core.

33. (Previously Presented) The device of claim 31, wherein the beveled mirror is disposed at an angle.

34. (Previously Presented) The device of claim 31, wherein the detector layer comprises a base of a phototransistor.

35. (Canceled)

36. (Previously Presented) The device of claim 31, wherein the waveguide core is disposed over a substrate and the beveled mirror directs the mode propagated through the waveguide core and through the detector layer into the substrate.

37. (Previously Presented) The device of claim 31, wherein the detector layer comprises an intrinsic layer region of a photodiode having an n-type region-and a p-type region.

38. (Canceled)

39. (Previously Presented) The device of claim 37, wherein the waveguide core is disposed over a substrate and the beveled mirror directs the mode propagated through the waveguide core and through the detector layer into the substrate.

40. (Previously Presented) A device, comprising:

a waveguide core having a bottom surface, the waveguide core for transmitting a mode;
a cladding layer adjacent to the bottom surface;

a detector layer;

an attenuating layer coupled to the bottom surface of the waveguide core and positioned on top of the detector layer; and

a beveled mirror disposed on the waveguide core, the beveled mirror confining reflections of the mode within the waveguide core, the beveled mirror directing the mode from within the waveguide core to the attenuating layer, the mode traveling through the attenuating layer into the detector layer.

41. (Previously Presented) The device of claim 40, wherein the waveguide core has a top surface that defines an angle, the angle being at least equal to an angle of total internal reflection of the waveguide core.

42. (Previously Presented) The device of claim 40, wherein the beveled mirror is disposed at an angle.

43. (Previously Presented) The device of claim 40, wherein the detector layer comprises a base of a phototransistor.

44. (Canceled)

45. (Previously Presented) The device of claim 40, wherein the waveguide core is disposed over a substrate and the beveled mirror directs a mode propagated through the waveguide core through the detector layer into the substrate.

46. (Previously Presented) The device of claim 40, wherein the detector layer comprises an intrinsic layer region of a photodiode having an n-type region-and a p-type region.

47. (Canceled)

48. (Previously Presented) The device of claim 46, wherein the waveguide core is disposed over a substrate and the beveled mirror directs a mode, propagated through the waveguide core, through the detector layer into the substrate.

49. (Previously Presented) The device of claim 40, wherein the cladding layer has a thickness equal to or greater than an evanescent tail of a mode to be transmitted along the waveguide core.

50. (Previously Presented) The device of claim 49, wherein the mode is transmitted along the waveguide core through the attenuating layer into the detector layer.